

TECH SPEC SERIES

Part 2: Mastfoot

Setting our kit up properly before going out on the water is one of those areas of windsurfing full of urban myths, mumbled truths and general chaos as we rush frantically to get everything done so we can get out there before the wind dies! Along with the fact that there are so many bits of advice on how to set kit up (much of which contradict themselves) and the fact that no-one wants to spend hours on the shore tweaking and tuning, all of our good intentions go out the window as we bundle everything together and hope for the best. However, as I'm sure we have all discovered at some point, setting everything up right can make the difference between having a fantastic session on the water and having a really bad one! Jim Collis, in his 'Tech Spec' series, is going to navigate us through this quagmire of myth, legend and general confusion, and give us some simple advice on setting up our kit quickly, easily and efficiently. This month Jim is going to move onto mastfoot positioning, once again aiming to simplify an otherwise unnecessarily over-complicated area, so that we get out on the water without delay and have that great session!

This series is NOT going to be a massively detailed guide covering all specifics, but rather a simple guide to help answer questions and make our lives easier regards some of those misunderstood and confused issues surrounding kit set up. For more detail or specifics please feel free to contact Jim on jimcollis@windsurfevolution.co.uk and he will be more than happy to spend more time going through things.

MASTFOOT POSITIONING

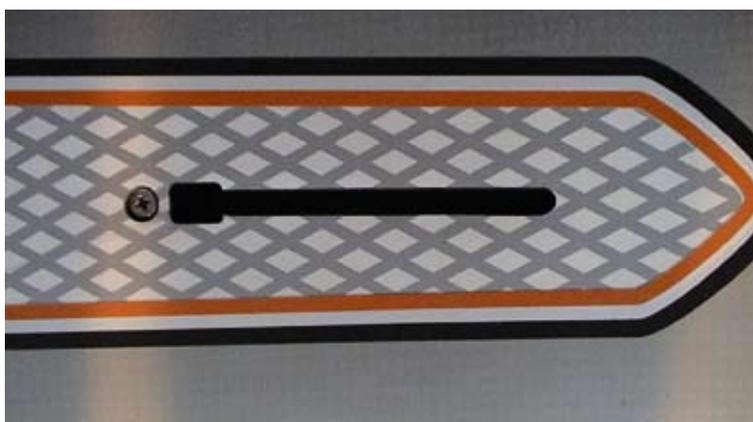
Why is mastfoot position so important?

Where we position our mastfoot changes the nature and performance of a board dramatically. There are two factors that influence this adjustment of our mastfoot:

- The size and weight of us as a sailor and that of the rig that we are using.
- What we want to get out of our board regards performance; whether it is speed, control, or a compromise between the two.

Ultimately, whatever we want to do on our board and however big we are or the rig we are using is, it is essential that the board is kept relatively flat as otherwise it drags in the water and will never go very fast.

The masttrack is not in a random place on the board but specifically placed by board designers so that it lies on top of what is known as the "Flat Spot" of a board; the flat section on the bottom of a board in between where the nose rocker (lift in the nose) of a board ends and the tail rocker (lift in the tail) starts.



With this in mind we are already fairly well looked after by the designer of a board regards keeping our board flat but, as with anything, due to the fact that we are all different shapes and sizes and we all want something slightly different out of our kit when sailing, we need to 'tweak' or adjust the position of our mastfoot, by moving it either forwards or backwards in the mast track, to suit our needs.

How does changing the position our mastfoot affect our board?

As was mentioned above, there are two factors that govern the adjustment of our mastfoot – rig and sailor size, and the desire to change the nature and performance of our board. We are going to look at both of these factors separately so as to get a clearer understanding of what happens when we change the position of our mastfoot.

Size of sailor and/or rig:

A board is at its happiest and most effective when it is flat. As all windsurfers are different shapes, weights and sizes, as are the rigs that we all use as well, it is a general rule that a larger sailor using a bigger rig will have to place their mastfoot in a different position to a lighter sailor with a smaller rig so as to 'balance' their board and keep it flat.

In general terms:

- The bigger and heavier the sailor and/or the rig, the further forward the mastfoot needs to go in the slot so as to keep everything balanced and the board flat.



- Equally, the smaller and lighter the sailor and/or the rig, the further towards the back of the slot the mastfoot can be positioned.



Nature and performance of the board:

As well as keeping a board 'balanced' and flat by taking into consideration the size/weight of the sailor and their rig, we can also 'tweak' the nature and performance of a board through small adjustments of the mastfoot. Here is a simple break down -

- The further forwards the mastfoot is positioned in the mast track gives the sailor more control, especially at high speeds, as it keeps the board's nose down and stops it 'releasing' too much and becoming too lively. Obviously the top end speed of the board will be affected as it can't fully release itself, but this can be a good thing if we are over-powered!



Top Tip - Placing a mastfoot forwards on a freestyle board, as well as giving it more control when going forwards, also gives it much more control when sliding backwards.

The further towards the back of the slot we position our mastfoot the more speed and liveliness we will get out of the board when we are planing. The board can 'release' more of itself from the water when going quickly and thereby reduce drag further and so go even faster! The drawback to this, other than it maybe being too quick and lively a ride for some (!), is that the board can take a little longer to get planing as there is more weight towards the back of the board causing it to 'drag' its tail a little as we try to get planing.



Top Tip - Positioning your mastfoot towards the back of the slot on a wave board can make the board feel much more 'loose' and lively. Place it further forwards and the wave board feels much more 'locked-in' and directional (which is fantastic for those smooth bottom turns!)

- Placing our mastfoot somewhere between the two, as a compromise, will give us the best of both worlds – earlier planing (as the tail does not drag) but still good release when going quickly to give us pretty fast performance, and yet still good manners and control when going quickly so that the rider does not feel un-nerved!



Top Tip – For freeride performance, where we want to go fast but still feel in control, this is the best option.

Where we should position our mastfoot as a starting point before 'tweaking'?

Up until now we have looked at the why's and how's of mastfoot adjustment. To tie all this together we need to take a brief look at some specifics of where to place our mastfoot to start with and then we can 'tweak' and adjust according to what we have discovered from above.

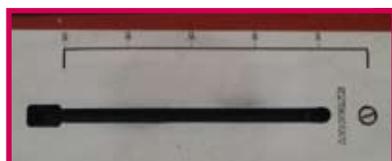
There are two trains of thought here and both seem to work as well as each other in this day and age of excellent equipment coming from the manufacturers.



- One is measuring from the tail of your board to the mast track and positioning your mastfoot according to certain tried and tested measurements.



- The other is to start in the middle of the mast track with your mastfoot and then work either forwards or backwards from there.



Top Tip – Some manufacturers give advice in the form of diagrams or measurements along the side of the mast track, which are generally very accurate and a real help!

Nowadays, it is very rare to get a badly made board or sail as the competitiveness and expertise of all the manufacturers is at such a high level. Perhaps in the not so distant past it was fairly common for boards to be slightly inaccurate regards their alignment of mast track and "flat spot". But this seems to now be a thing of the past and thereby, with this in mind, it is perhaps less necessary for us to be measuring exact positions on our boards for where to place our mastfoot. Having said this, if we are involved in a very specific discipline such as slalom or perhaps we just feel more comfortable if we do measure, then that is great as well. There is a high probability that whichever method you use, albeit unless we are immersed in a very specific discipline within windsurfing, we will end up with pretty much the same position.

Measuring from the tail:

This method is actually just a way of checking that the mast track is in line with the "flat spot" of the board.

N.B. These measurements represent a 'starting point' on the mast track for our mastfoot. We can then move our mastfoot either forwards or backwards within a range of 10 cm either way so as to 'tweak' our board's performance or adjust according to sailor and/or rig weight and size.



- For boards of over 110 litres, the 'starting point' is 135 cm from the tail.



- For boards of under 110 litres, the 'starting point' is 130 cm from the tail.



- For boards of under 90 litres, the 'starting point' is 127 cm from the tail.



- For a board with a dagger-board, the 'starting point' is 145 cm from the tail.



Top Tip – When measuring from the tail, don't wrap the tape measure around the tail but take a straight edge so as to get a flat measurement as if you were measuring along the bottom of the board.

Starting from the middle of the mast track:

The chances are that if you ask most people where they place their mastfoot they will say "In the middle!" This method is slightly different as although we start in the middle, we then adjust or 'tweak' forwards or backwards according to the factors we looked at above.

N.B. Although it may seem like a very inexact method, with board manufacture being so good these days, the 'middle' of most mast tracks is carefully positioned right over the "flat spot" of the majority of boards and so, just as with the measuring method, this provides us with a good 'starting point' from which to adjust either forwards or backwards with our mastfoot.

- Start by placing your mastfoot in the middle of the mast track and then move it backwards or forwards according to sailor and/or rig weight and size, and what you want to get out of the board performance-wise.

- Move the mastfoot within a maximum range of 10cm (5 fingers) either way. ▶



Top Tip – You generally will never need to move your mastfoot more than 5 cm either way in your mast track to cover all eventualities and/or desires!

Bringing it all together

Having looked at how, why and where to place our mastfoot, we are probably feeling a little saturated with information.

So as to help bring all that has been mentioned together into some easily swallow-able bite size chunks, here are some classic examples of scenarios and the resulting mastfoot positions, some correct and some not quite so correct!

EXAMPLE 1:

A 95 kilo bloke going sailing with a 7.7m sail on his 145 litre freeride board looking to practice his blasting and the odd turn in a nice Force 4...

- He starts with his mastfoot at 135 cm from the tail.
- He moves the mastfoot forwards a bit to 140 cm.

Verdict - Good choice

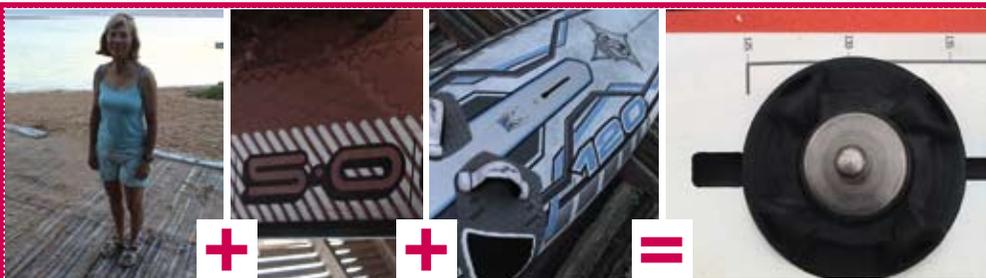


EXAMPLE 2:

A 65 kilo lady goes sailing on her 120 litre freeride board with a 5.0m sail. She is a little worried about being overpowered in the wind that is a Force 4-5 but only has this one sail and board...

- She starts by placing the mastfoot at 135 cm from the tail.
- She then moves the mastfoot back a bit to 130cm as she was told that lighter sailors always moved their mastfeet back a bit.

Verdict - Not So Good



Reason - The first 'starting point' was good (135 cm from tail)

but then she should have moved the mastfoot forwards a little (to around 138/140 cm) to help maintain control. By going out with it back a bit the board would be much more lively and fast and would feel more out of control.

Although light sailors using smaller rigs might be able to move their mastfeet back a bit in comparison with a heavy guy with a big rig, the important thing for her here is the control aspect and not that she is relatively light.

EXAMPLE 3:

A 55-kilo lady is going out on her 4.5m sail with her new 77 litre freestyle wave board. She is trying some chop hops and duck gybes and the wind strength is comfortable...

- She starts by placing her mastfoot in the middle of the track.
- She then moves it back about 3 fingers (3cm).

Verdict - Good choice

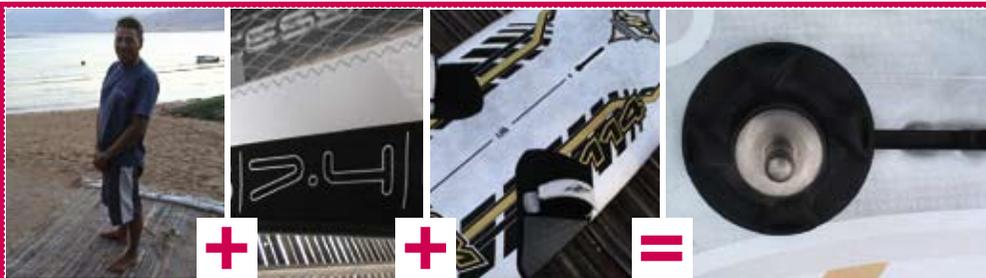


EXAMPLE 4:

An 80-kilo bloke is going out to race against his mates on his 114 litre slalom board. He has got his 7.4 m sail and it is blowing Force 4-5.

- He just wants to win so he whacks his mastfoot towards the back of the track for lots of 'release' of the board when he is planing.

Verdict - Not So Good



Reason - Although the guy in this example wants to go fast

when planing, he needs to get planing first! Early planing comes from having the board flat. With the rig size he is using and his weight, and taking his board into consideration, he would have been better putting his mastfoot at 135cm from the tail to start with and then maybe moving it fractionally forwards 1 or 2 fingers (1 or 2 cm). The board would have been balanced and flat and thereby planed early and yet would have still 'released' well when up to speed.

However, with the set up he has he would have found the board quite sluggish to get going ('tail heavy') and although he would have got quite good top end speed when he was up and planing, the rest of his mates would have already left him for dust!

This brings us to the end of this episode on mastfoot positioning. Hopefully this article has given us some food for thought and helped to make our lives easier with regard to positioning our mastfoot.

Remember, however, that it is always good to experiment. Whilst having the guidelines from this article, the next time you hit the water, try placing your mastfoot in a couple of places during the course of your session and see if you can feel the difference! ●

Tester for Windsurf magazine. If you'd like any more information on coaching or training to be an instructor with Jim please contact him on jimcollis@windsurfevolution.co.uk or visit www.windsurfevolution.co.uk